A New Species of *Solanum* subgenus *Leptostemonum* (Solanaceae) from Chapada da Diamantina, Bahia, Brazil

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ABSTRACT. A new species, *Solanum diamantinense*, is described and illustrated. It is endemic to Brazil and restricted to the Chapada Diamantina in the State of Bahia, northeastern Brazil. This species is closely related to the Brazilian *Solanum baturitense* Huber, from which it differs by its oblanceolate leaf blades, short calyx lobes, and dense, stalked, glandular-stellate pubescence.

RESUMO. Uma nova espécie, *Solanum diamantinense*, é descrita e ilustrada e sua distribuícão e sua afinidade são discutidas. Espécie endêmica do Brasil, restrita à Chapada da Diamantina, estado da Bahia, nordeste do Brasil. *Solanum diamantinense* possui afinidade com *S. baturitense* Huber, da qual pode se distinguir pela lâmina foliar oblanceolada, cálice com lobos curtos e a densa pubescência com tricomas estrelados e glandular-estrelados pedicelados.

Solanum L. is the largest and most complex genus of the Solanaceae family, with about 1500 species and 5000 published epithets. It is distributed mainly throughout the tropical and subtropical regions of the world and has its center of diversity and distribution in South America.

While preparing a taxonomic revision of the *Solanum erythrotrichum* group sensu Whalen (1984) of the subgenus *Leptostemonum* Dunal, a new species was identified on the basis of its distinctive morphological characteristics and is herein named *Solanum diamantinense*.

Members of the subgenus *Leptostemonum* Dunal *Erythrotrichum* group sensu Whalen (1984) form a South American distinctive, diverse, and presumably monophyletic group that comprises species possessing ferruginous to reddish glandular-stellate pubescence, branched inflorescences, attenuate and subulate anthers, somewhat accrescent calyces, and glandular-pubescent berries with a leathery epicarp at maturity.

Solanum diamantinense M. F. Agra, sp. nov. TYPE: Brazil. Bahia: Mun. Seabra, a 2 km de Seabra, na direção de Campestre, altitude 930 m, vegetação área de contato ecológico (caatinga/floresta estacional), 3 Apr. 1998 (fl, fr), *M. F. Agra & A. M. Giulietti 5176* (holotype, JPB; isotypes, JPB, JPB, HUEFS, MO, SPF, UPS). Figure 1.

Frutex ad ramos juniores folios inflorescentiamque trichomatibus stellatis glandulosis ferrugineis tomentosus, ad caulem foliosque aculeis rufescentibus basi dilatatis compressis apice leniter recurvis armatus. Folia alterna petiolata lanceolata apiculata basi acuta marginibus integerrima utrinque tomentosa. Inflorescentia ex cyma terminali bi- vel trichotoma multiflora constans. Flos calyce breviusculo campanulato-scutellari, laciniis brevissimis tomentoso-ferrugineis; corolla alba in lacinias lanceolatas intus glabras extus stellato-tomentosas profunde partita, lobulis sub anthesi reflexis; antheris aequalibus 0.5–0.6 cm longis lanceolatis rectis; ovario depresso-globoso piloso; stylo erecto. Bacca globosa glanduloso-pilosa diametro 1.5–2.0 cm; seminibus 4–5 mm longis, lenticularibus, subreniformibus, alutaceis.

Small erect, branched, perennial shrubs 0.4–2 m tall. *Stems* terete, reddish or ferruginous tomentose with glandular-stellate trichomes and strongly armed with reddish, laterally compressed prickles that are enlarged at the base, 0.2–0.3 cm wide, 0.2–0.5 cm long, and slightly recurved at the apex, longer and more numerous on the young plants; bark of older stems glabrescent and dark brown. *Leaves* alternate, usually unarmed in adult plants; if armed, with prickles only on the midrib, lateral veins, and petioles; blades entire, bicolored, subcoriaceous, oblanceolate or elliptic, 4–12 cm long, 2–3 cm wide, acute at apex, acute and slightly attenuate at base, velutinous above with glandular and eglandular, multiseriate-stalked, ferruginous to reddish stellate hairs, 2–4 branches of the glandular-stellate hairs reflexed, unarmed or sparsely armed below with small, ferruginous to brown prickles, ferruginous to yellowish tomentose with glandular-stellate hairs, the multiseriate stalk 2–3 times longer than in hairs of upper surface; primary veins prominent, ferru-

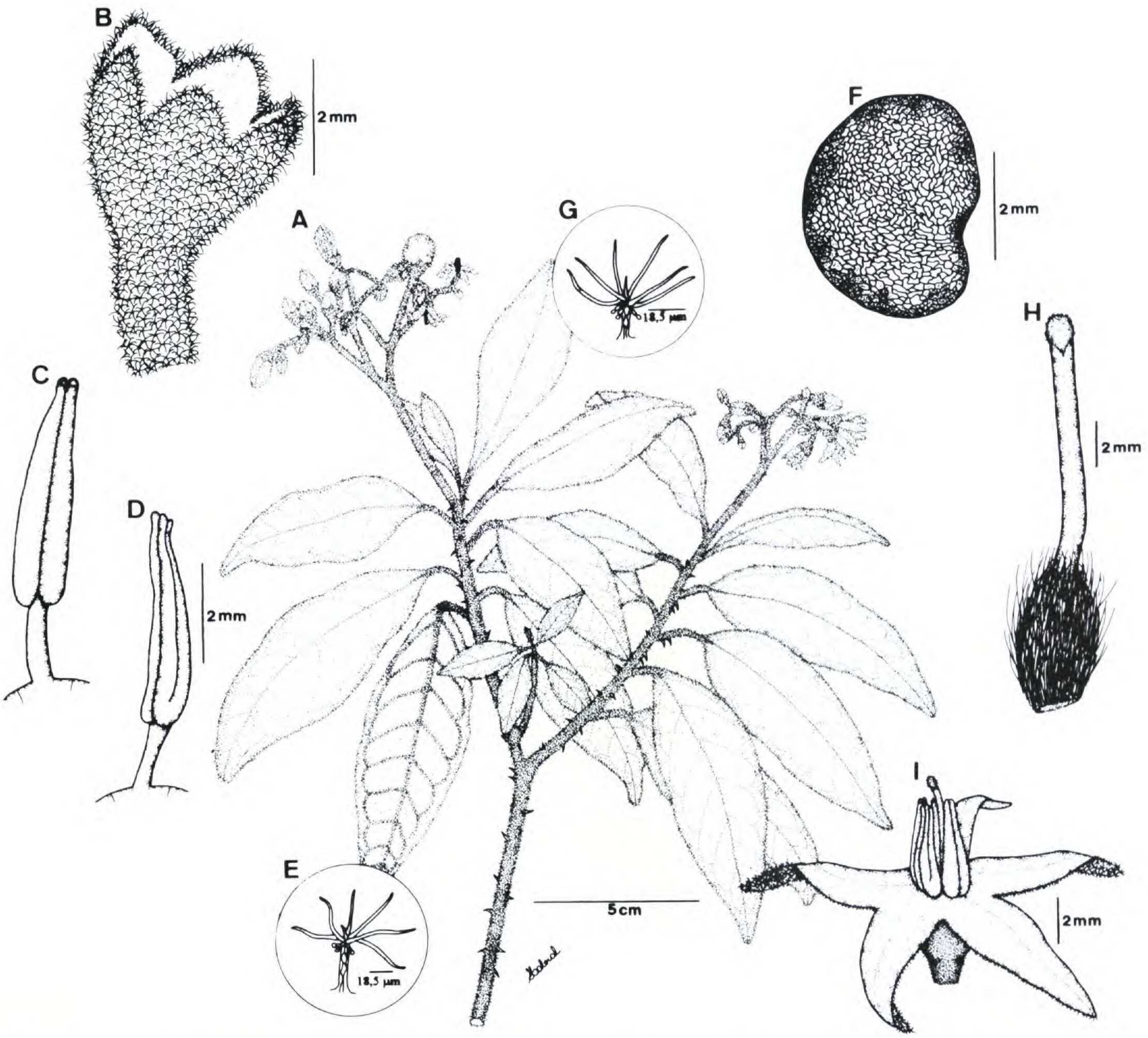

Figure 1. *Solanum diamantinense* M. F. Agra. —A. Flowering branch. —B. Calyx. —C. Stamen, front view. —D. Stamen, lateral view. —E. Stellate glandular hair from abaxial leaf surface. —F. Seed. —G. Stellate glandular hair from adaxial leaf surface. —H. Gynoecium. —I. Flower.

ginous; petioles short, 1–2 cm long, unarmed or sparsely armed with small reddish to brown prickles, densely tomentose with reddish, stalked, stellate hairs similar to those of the lower surface. *Inflorescences* terminal, 4–10 cm long, remote from the leaves, scorpioid, bi- to tri-furcate, more than 20-flowered; peduncle subterete, unarmed, unbranched, 2–10 cm long, 2–5 mm thick, ferruginous to reddish tomentose, the hairs similar to the branches and petiole; pedicels slender and articulate at the base, 3–5 mm long, with hairs similar to those of the peduncle. *Flowers* heterostylous, the basal ones with elongate and functional styles exceeding the anthers, the distal ones with reduced gynoecia. *Calyx* unarmed, subcampanulate, slightly zygomorphic, 5-lobed about ¼ the length, the lobes ca. 1 mm long, acute to apiculate, the tube ca. 2–3 mm long, 4 mm wide in flower, 8–10 mm long and 5–7 mm wide in fruit, glabrous within, ferruginous-tomentose without, with glandular stellate hairs similar to those of the petiole. *Corolla* white, long exserted from the calyx at anthesis, stelliform, 2–2.5 cm across, deeply parted, the tube 2–4 mm long, the lobes linear-lanceolate, reflexed at anthesis, 8–10 mm long, 2–4 mm wide, glabrous within, the midrib prominent, tomentose without, with ferruginous glandular-stellate hairs similar to those of abaxial surface of the leaf blades. *Anthers* equal, connivent, 5–6 mm long, linear-lanceolate, attenuate, subulate and introrse at the apex, slightly asymmetric at the base; filaments glabrous, the free part 1–2 mm long. *Ovary* depressed globose, ca. 2 mm long, densely villose with stellate hairs, the long branches of the stellae

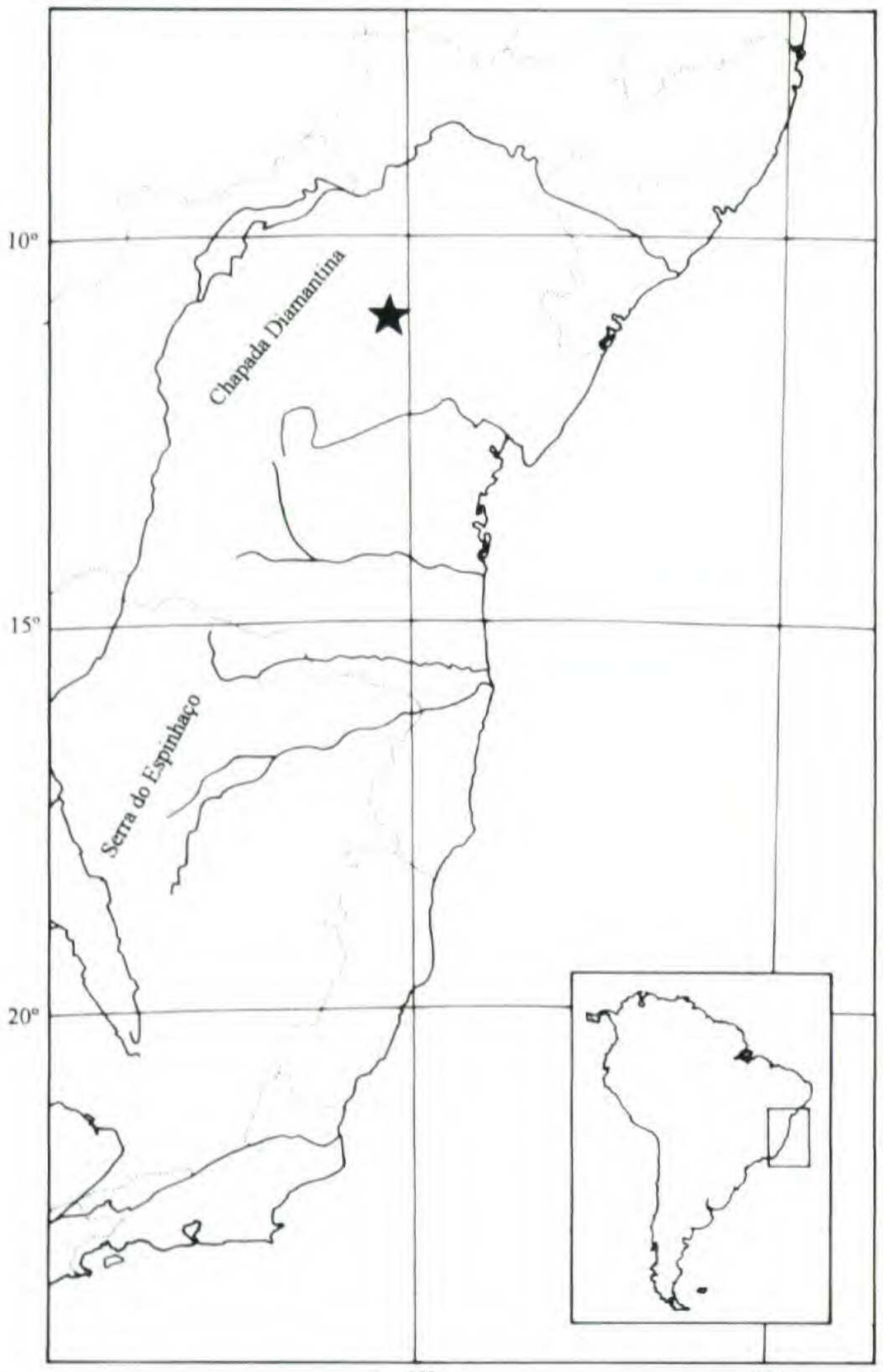

Figure 2. Distribution of *Solanum diamantinense* M. F. Agra.

2–3 mm long. *Style* glabrous, straight or curved at the apex, pubescent at base, exceeding the stamens, 8–10 mm long in functional flowers, 4–5 mm long in staminate flowers. *Stigma* clavate-truncate, dark green, shiny, minutely papillose at the tip. *Fruits* globose, held upright, 1.5–2.0 cm diam., with leathery epicarp, persistently ferruginous pubescent with glandular-stellate hairs mixed with short and long unbranched gland-tipped hairs, the calyx persistent and somewhat accrescent. *Seeds* lenticular, subreniform, brown, 4–5 mm long, 3–3.5 mm wide, the testa with fine reticulated ornamentation.

Distribution and habitat. *Solanum diamantinense* is endemic to Brazil and known only from collections from the Morro do Chapéu and Seabra, State of Bahia. It grows in secondary vegetation associated with "campos gerais" at elevations of 900–1200 m. These areas are located in the mountain zone known as the Chapada Diamantina (Fig. 2), which is one of the richest centers of diversity of plant life in Brazil and contains some of the rarest species. It is characterized by a complex mosaic of different types of vegetation (Harley, 1992). The "campos gerais" is a feature of large tracts of upland Bahia around Morro do Chapéu. It occurs on deeper soils over flat or slightly undulating ground and contains many typical cerrado species, the vegetation being dominated by grasses and low shrubs (Harley, 1995).

Affinities. *Solanum diamantinense* is similar and probably closely related to *S. baturitense* Huber, another Brazilian species. It can be distinguished from *S. baturitense* by its oblanceolate to elliptic leaves, very short calyx lobes, and dense, stalked, glandular-stellate pubescence on all parts of the plant, especially both sides of the leaves. Both species share branched inflorescences, lanceolate-subulate anthers, reddish to ferruginous pubescence, white flowers, and slightly accrescent calyces. This set of morphological characteristics makes *S. diamantinense* a very distinctive species in the informal *Erythrotrichum* group of subgenus *Leptostemonum.*

Paratypes. BRAZIL. **Bahia:** Mun. Seabra, a 12 km de Seabra, na direção de Campestre, altitude 930 m, vegetação área de contato ecológico (caatinga/floresta estacional), 15 Nov. 1983 (fl, fr), *J. A. C. Lima et al. 246* (HRB); Mun. Morro do Chapéu, lat. 11°38′34″S, 40°55′45″W, vegetação mistura (savana/estepe), latossolo, 26 Aug. 1980 (fl, fr), *H. P. Bautista 353* (HRB); Mun. Morro do Chapéu, lat. 11°31′S, long. 40°18′W, vegetação mistura (Savana/Estepe), 5 Apr. 1984 (fl, fr), *O. A. Salgado & H. P. Bautista 354* (HRB); Mun. Morro do Chapéu, elev. ca. 1030 m, 3 km S de Morro do Chapéu, caminho de Utinga, aprox. 11°35′S, 41°11′W, carrasco ou caatinga de altitude, 28 Nov. 1992 (fl, fr), *M. M. Arbo et al. 5358* (CTES not seen, GH, JPB (2), MO, RB, SP, SPF); Mun. Morro do Chapéu, ca. 4 km SW of the town of Morro do Chapéu on the road to Utinga, scrubby "campos gerais" vegetation, alt. 1150 m 11°35′S, 41°11′W, 2 June 1980 (fl), *R. M. Harley et al. 22991* (CEPEC, F, RB); Mun. Seabra, 13 Ago. 1956 (fl, fr), *E. Pereira 2162* (RB (3)); Mun. de Lagoinha, 18 km of Lagoinha, 5.5 km SW of Delfino on side road to Minas do Mimoso, disturbed woodland, secondary vegetation by cultivation, and marsh by small stream, alt. 950 m, aprox. 10°20′S, 41°20W, 7 Mar. 1974 (fl), *R. M. Harley et al. 16943* (CEPEC, IPA, K, M, MO, RB, US); Mun. Utinga, beira da estrada BA 142, próximo a Utinga 12°28′00″S, 41°27′00″W, alt. 1000 m, 10 Mar. 1996 (fl), *R. Lima et al. 2215* (HUEFS); Mun. do Morro do Chapéu, Cachoeira do Ferro Doido, 20 Km SE da cidade, alt. ca. 900 m s.m., 19 Nov. 1986 (fl), *L. P. Queiroz et al. 1305* (HUEFS); Mun. do Morro do Chapéu, 1–2 km sul da cidade na estrada para Utinga, 11°33′00″S, 41°09′00″W, 16 Nov. 1984 (fl), *L. R. Noblick 3497* (HUEFS, NY).

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